UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,541	06/26/2001	Motohiro Nakamaki	KYO-100	9359

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ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/888,541	NAKAMAKI ET AL.
	Examiner	Art Unit	
	Mark R. Milia	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>*25 July 2005*</u>.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18 and 20* is/are pending in the application.
    4a) Of the above claim(s) *19* is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-18 and 20* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some * c) ☐ None of:
        1. ☒ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment was received on 7/25/05 and has been entered and

made of record. Currently, claims 1-18 and 20 are pending.

Priority

2.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Claim Objections

3.   Claim 19 is objected to because of the following informalities: According to

applicant's statements regarding claim 19, on page 11 of the remarks/arguments, the

applicant states that claim 19 has been canceled. However, the amendments to the

claims show that claim 19 has been amended and appears as though it is still a pending

claim. Due to the two instances on page 11 of the remarks/arguments that state claim

19 has been canceled, the examiner will not address claim 19 and removes it from

consideration. Appropriate correction is required.

Response to Arguments

4.   Applicant's arguments filed 7/25/05 have been fully considered but they are not

persuasive.

In response to applicant's arguments regarding the rejection of claims 1-20, more

specifically claims 1, 3, 6, and 18-20, wherein on pages 12-14, the applicant asserts

that the reference of Kashiwazaki does not disclose the combination of a receiving

buffer, executing section, and pre-processing section as recited in claims 1, and 18-20

and fails to disclose the limitations set forth in claims 3 and 6. Regarding the arguments

concerning claims 1 and 18-20, the examiner respectfully disagrees as Kashiwazaki

does disclose such features. Particularly, received print data and control data are

stored in a spooler "303", in the order they are received (see column 4 lines 28-30),

which is analogous to a receiving buffer that stores print and control data as recited in

the claim limitation. Kashiwazaki also discloses an executing section to read the

received data and execute printing if the data is print data and execute a control

command if the data is control data (see column 4 lines 40-57). The job controller "306"

analyzes the control data and in turn will execute a process according to the content of

the data and the print data will be read by PDL analyzer "307" and processed to record

the print data on a recording medium, all of which is analogous to the claim limitation.

Kashiwazaki further discloses a pre-processing section that is analogous to the claim

limitation as seen in column 4 line 25-column 5 line 64 and column 7 lines 7-13. The

reference states that control data is analyzed to determine what type of control

command is present. After this determination, a print job associated with the control

data is located and then the control command is executed to interrupt, delete, etc., the

print job. Therefore, it can be seen that the control data is "pre-read" to determine the

type of control command present before the actual execution of the command is carried

out and thus the reference of Kashiwazaki discloses the claims limitations as recited in

claims 1 and 18-20.

Regarding the arguments pertaining to claim 3, as set forth on page 13, the

examiner respectfully disagrees that the reference of Kashiwazaki does not disclose a

read-out position changing section. Kashiwazaki does disclose such a feature as

shown in column 5 lines 35-64 and Fig. 4. The reference shows that after a control data

command, such as a cancel command, is executed the analyzer moves on to the next

set of control and print commands.

Regarding the arguments pertaining to claim 6, as set forth on page 14, the

examiner respectfully disagrees that the reference of Kashiwazaki does not disclose a

main task and does not cancel printing based on the print data received prior to the

cancel command when the cancel command is found. Kashiwazaki does disclose such

features. Particularly, the job controller "306" analyzes control data and when a

command for the deleting of a print job is found the system located the print job

associated with the control data and then executes the command (see column 4 line 25-

column 5 line 64 and column 7 lines 7-13). Further, Kashiwazaki also discloses that a

delete command can be entered after the print data to which it is associated with and

the control command will be read and executed on the correct print job prior to the print

job being executed (see column 6 lines 5-67).

5.   Therefore, the rejection of claims 1-18 and 20, as cited in the previous Office

Action, is maintained and repeated in this Office Action.

Claim Rejections - 35 USC § 102

6.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

7.   Claims 1-5, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated

by U.S. Patent No. 6570605 to Kashiwazaki.

        Regarding claim 1, Kashiwazaki discloses a printer comprising a receiving

buffer in which received print data and data are stored as received data in the order of

control receipt (see column 2 lines 44-45 and column 4 lines 25-36), an executing

section configured to read the received data from the receiving buffer in the order of

storage, and develop the received data into an image if the received data is the print

data and execute a control command if the received data is a control command of the

control data (see column 4 line 37-column 5 line 33), and a pre-processing section

configured to pre-read the received data stored in the receiving buffer before the

executing section reads the received data and, when a specific control command of the

control data from the pre-read received data is found, the pre-processing section

executing a procedure corresponding to the detected control command prior to the

executing section (see column 4 lines 40-43, column 4 line 58-column 5 line 3, column 5

lines 26-28, and column 7 lines 7-13, reference shows that control data is read and

executed before execution of the print data).

Regarding claims 18 and 20, Kashiwazaki discloses a printer control

method and storage medium storing a program comprising the steps of storing received

print data and received control data as received data in a receiving buffer in the order of

receipt (see column 2 lines 44-45 and column 4 lines 25-36), reading the received data

out of the receiving buffer in the order of storage (see column 4 lines 44-46), developing

the print data into an image if the received data is the print data (see column 4 lines 44-

57), executing a control command if the received data is a control command of the

control data (see column 4 lines 40-43 and column 4 line 58-column 5 line 33), pre-

reading the received data stored in the receiving buffer prior to reading the received

data (see column 4 lines 25-57), pre-executing procedure corresponding to a specific

control command prior to the executing of the specific control command if the specific

control command of the control data is detected by the pre-reading (see column 4 lines

40-49 and column 5 lines 44-59, reference shows that the control data is read and

executed before the print data is executed).

Regarding claim 2, Kashiwazaki discloses the system discussed in claim

1, and further discloses wherein the specific control command is a cancel command for

canceling the print based on the print data received prior to the specific control

command (see column 5 lines 26-28), and when the pre-processing section finds the

cancel command, the pre-processing section executes the cancel command prior to the executing section (see column 4 lines 25-43).

Regarding claim 3, Kashiwazaki discloses the system discussed in claim 2, and further discloses a read-out position changing section which functions, when the pre-processing section has executed the cancel command, such that the position in the receiving buffer for the executing section to read the received data is jumped to the position next to the cancel command (see Fig. 4, column 4 lines 40-46, and column 5 lines 39-64, reference shows that after a control data command, such as a cancel command, is executed the analyzer moves on to the next set of control and print commands).

Regarding claim 4, Kashiwazaki discloses the system discussed in claim 1, and further discloses a rewrite section which functions, when the pre-processing section has executed the specific control command of the control data, to rewrite a no-operation command into the portion of the executed control command in the receiving buffer (see Fig. 4, column 4 line 58-column 5 line 33, and column 5 lines 44-59, reference shows a plurality of control data commands, some of which do not actually result in an execution of a print job or cancel/interrupt/resume thereof, and therefore no operation needs to be executed upon the print data held in storage).

Regarding claim 5, Kashiwazaki discloses the system discussed in claim 1, and further discloses wherein the printer has only one logic channel for receiving the print data and the control data from a computer (see Fig. 2 (201) and column 4 lines 8-10).

Claim Rejections - 35 USC § 103

8.   Claims 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kashiwazaki as applied to claim 2 above, and further in view of U.S. Patent No.

6504619 to Kageyama et al.

Regarding claim 6, Kashiwazaki discloses a read-out task configured to read out

the receiving data from the receiving buffer (see column 4 lines 40-49) and a main task

configured to acquire the received data from the read-out task, the main task developing

the print data into the image when the received data is the print data and executing the

control command of the control data when the received data is the control data (see

column 4 line 40-column 5 line 33), the pre-processing section being realized by a pre-

read execute processing incorporated in the main task, which reads out the received

data from the receiving buffer, when the cancel command is found from the received

data, to cancel the print based on the print data received prior to the cancel command

(see column 4 lines 40-43 and column 5 lines 26-28 and 44-64).

Kashiwazaki does not disclose expressly a read-out pointer, which after output,

counts up the read-out pointer every time.

Kageyama discloses a read-out pointer, which after output, counts up the read-

out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claims 8 and 11, Kashiwazaki discloses a read-out task configured to

read out the receiving data from the receiving buffer (see column 4 lines 40-49) and a

main task configured to acquire the received data from the read-out task, the main task

developing the print data into the image when the received data is the print data and

executing the control command of the control data when the received data is the control

data (see column 4 line 40-column 5 line 33), the pre-processing section being realized

by assigning a pre-read task to the central processing unit in a predetermined order of

priorities and executing the pre-read task, the pre-read task reading out the received

data from the receiving buffer, when the cancel command is found from the received

data, to cancel the print based on the print data received prior to the cancel command

(see column 4 lines 40-43 and column 5 lines 26-28 and 44-64).

Kashiwazaki does not disclose expressly a read-out pointer, which after output,

counts up the read-out pointer every time.

Kageyama discloses a read-out pointer, which after output, counts up the read-

out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claims 7, 10, and 13, Kashiwazaki and Kageyama disclose the system

discussed in claims 6, 8, and 11, and Kageyama further discloses wherein, if the cancel

command has been detected by the pre-processing section, the read-out task moves

the read-out pointer forward to the position next to the pre-read pointer (see column 9

lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claims 9 and 12, Kashiwazaki and Kageyama disclose the system

discussed in claims 8 and 11, and Kashiwazaki further discloses wherein the priority of

assignment of the processing unit to the pre-read task is lower than the priorities to the

read-out task and the main task (see column 4 lines 40-57, reference shows that

execution of the control command takes priority over the reading of new input data).

Kashiwazaki & Kageyama are combinable because they are from the same field

of endeavor, print control utilizing print data control commands.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the use of pointers, which is well know in the art, to

sequentially store and execute control and print data as shown by Kageyama with the

system of Kashiwazaki.

The suggestion/motivation for doing so would have been to preserve the content

of the command buffer and to reliably and accurately execute control and print

commands (see column 6 lines 40-57 and column 9 lines 16-18 of Kageyama).

Therefore, it would have been obvious to combine Kageyama with Kashiwazaki

to obtain the invention as specified in claims 6-13.

9.   Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kashiwazaki as applied to claim 1 above, and further in view of U.S. Patent No.

6804016 to Hashimoto et al.

Regarding claim 14, Kashiwazaki does not disclose expressly wherein the

specific control command is a paper size designation command which designates a

particular paper size for printing the print data received subsequently to the paper size

designation command, the pre-processing section functioning upon detection of the

paper size designation command to determine beforehand whether the print on a sheet

of paper of the size designated by the paper size designation command is possible, and

functioning upon the print being impossible to inform a user of that fact.

Hashimoto discloses wherein the specific control command is a paper size designation command which designates a particular paper size for printing the print data received subsequently to the paper size designation command, the pre-processing section functioning upon detection of the paper size designation command to determine beforehand whether the print on a sheet of paper of the size designated by the paper size designation command is possible, and functioning upon the print being impossible to inform a user of that fact (see column 33 lines 2-15).

Regarding claim 15, Kashiwazaki discloses a display unit, which can inform a user of various messages and information (see Fig. 10 and column 5 line 67-column 6 line 2).

Kashiwazaki does not expressly discloses wherein the pre-processing section functions upon detection of the paper size designation command to determine beforehand whether the printer has a paper tray of the size designated by the paper size designation command and, if the printer has no paper tray of the size designated by the paper size designation command, to inform a user of that fact, and to determine beforehand whether the paper tray of the size designated by the paper size designation command contains a sheet of paper and, if the paper tray of the size designated by the paper size designation command has no paper, to inform the user of that fact.

Hashimoto discloses wherein the pre-processing section functions upon detection of the paper size designation command to determine beforehand whether the printer has a paper tray of the size designated by the paper size designation command and, if the printer has no paper tray of the size designated by the paper size designation

command, to inform a user of that fact, and to determine beforehand whether the paper

tray of the size designated by the paper size designation command contains a sheet of

paper and, if the paper tray of the size designated by the paper size designation

command has no paper, to inform the user of that fact (see column 13 lines 34-42 and

column 33 lines 2-15).

Kashiwazaki & Hashimoto are combinable because they are from the same field

of endeavor, print control utilizing control commands.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the commands for detecting the presence/absence of paper

and paper size located in a printer input bin, which is well know in the art, as described

by Hashimoto, with the system of Kashiwazaki.

The suggestion/motivation for doing so would have been to increase productivity

and print accuracy and decrease printer down time and printing stoppage and failure

due to paper outages and paper size discrepancies.

Therefore, it would have been obvious to combine Hashimoto with Kashiwazaki

to obtain the invention as specified in claims 14-15.

10.   Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kashiwazaki and Hashimoto as applied to claim 14 above, and further in view of

Kageyama.

Regarding claim 16, Kashiwazaki discloses a read-out task configured to read

out the receiving data from the receiving buffer (see column 4 lines 40-49) and a main

task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data (see column 4 line 40-column 5 line 33), the pre-processing section being realized by a pre-read execute processing incorporated in the main task, which reads out the received data from the receiving buffer (see column 4 lines 40-43 and column 5 lines 26-28 and 44-64), and informing a user of various messages and information (see column 5 line 67-column 6 line 2).

Kashiwazaki does not disclose expressly a read-out pointer, which after output, counts up the read-out pointer every time and whether the print on a sheet of paper of the size designated by the paper size designation command is possible.

Hashimoto discloses whether the print on a sheet of paper of the size designated by the paper size designation command is possible (see column 33 lines 2-15).

Hashimoto does not expressly disclose a read-out pointer, which after output, counts up the read-out pointer every time.

Kageyama discloses a read-out pointer, which after output, counts up the read-out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claim 17, Kashiwazaki discloses a read-out task configured to read out the receiving data from the receiving buffer (see column 4 lines 40-49) and a main task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control

data (see column 4 line 40-column 5 line 33), the pre-processing section being realized

by assigning a pre-read task to the central processing unit in a predetermined order of

priorities and executing the pre-read task, the pre-read task reading out the received

data from the receiving buffer (see column 4 lines 40-43 and column 5 lines 26-28 and

44-64), and informing a user of various messages and information (see column 5 line

67-column 6 line 2).

Kashiwazaki does not disclose expressly a read-out pointer, which after output,

counts up the read-out pointer every time and whether the print on a sheet of paper of

the size designated by the paper size designation command is possible.

Hashimoto discloses whether the print on a sheet of paper of the size designated

by the paper size designation command is possible (see column 33 lines 2-15).

Hashimoto does not expressly disclose a read-out pointer, which after output,

counts up the read-out pointer every time.

Kageyama discloses a read-out pointer, which after output, counts up the read-

out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Kashiwazaki, Hashimoto, & Kageyama are combinable because they are from

the same field of endeavor, print control utilizing print data control commands.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the use of pointers, which is well know in the art, to

sequentially store and execute control and print data as described by Kageyama with

the commands for detecting the presence/absence of paper and paper size located in a

printer input bin, which is well know in the art, as described by Hashimoto, with the system of Kashiwazaki.

The suggestion/motivation for doing so would have been to preserve the content of the command buffer and to reliably and accurately execute control and print commands (see column 6 lines 40-57 and column 9 lines 16-18 of Kageyama) and to increase productivity and print accuracy and decrease printer down time and printing stoppage and failure due to paper outages and paper size discrepancies. Therefore, it would have been obvious to combine Kageyama with Kashiwazaki and Hashimoto to obtain the invention as specified in claims 16-17.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.
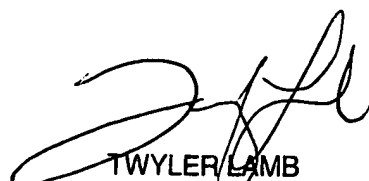
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark R. Milia
Examiner
Art Unit 2625

MRM

TWYLER LAMB
SUPERVISORY PATENT EXAMINER